

EXHIBIT

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DATE

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# DPHHS Data System Development Proposals

February 8, 2007

# The Issue

“Retiring aging mainframe systems is long overdue, but a lack of funds to replace them has kept them creaking along for years.

Now, however, the financial sting of buying new systems is finally becoming more tolerable than the chronic pain of continually patching up antique technology.

Not only are the old systems costly to maintain, they hamper states’ abilities to improve the efficiency of delivering social services to the people who need them...” FCW COM Oct 16, 2006

# The Proposal

- Replace obsolete data systems with three new systems capable of supporting 3 critical Montana programs - TANF/Food Stamps/Child Protection
- Set up 1/3 of the HHS system infrastructure required over the next 15 years
- Do this for \$16m less than it would cost if the replacement is delayed

# DPHHS System Requests

## System Requests 2007 Biennium

System	Total Cost	General Funds	Other Funds	% GF
CHIMES	1,100,000	550,000	550,000	50.00
TANF	16,225,000	7,625,000	8,600,000	47.00
Food Stamp	13,070,000	6,535,000	6,535,000	50.00
CAPS	27,150,000	15,204,000	11,946,000	56.00
ICD 10	<u>3,000,000</u>	<u>300,000</u>	<u>2,700,000</u>	10.00
Total 2007 Biennium	60,545,000	30,214,000	30,331,000	49.90

## Future System Needs (beginning 2009 biennium)

System	Total Cost	General Funds	Other Funds	
MMIS	70,000,000	7,000,000	63,000,000	10.00
SEARCHS	<u>60,000,000</u>	<u>20,400,000</u>	<u>39,600,000</u>	34.00
Ttl 2009 Biennium	130,000,000	27,400,000	102,600,000	21.08

# CHIMES Data System

- Determines eligibility for the \$900m Medicaid program
- Replaces Medicaid portion of TEAMS system (will be 20 years old when retired)
- Development started in 2003, expect implementation in 2008 (approx 2/3 finished)
- Estimated total cost \$8.5m
- Funding to date primarily federal funds
- Requesting \$550k gen funds (\$1.1m total funds) to complete

# TANF Eligibility System

- Determines eligibility for Temporary Aid to Needy Families (TANF) program
- Replaces TANF portion of TEAMS system
- Estimated cost \$16.2m (\$7.6m general funds)
- 3.5 yr development (2007-2010)
- Leverages investment in CHIMES system

# Food Stamps Eligibility System

- Determines eligibility for Food Stamps program
- Replaces Food Stamps portion of TEAMS system
- Estimated cost \$13.0m (\$6.5m gen funds)
- 3.5 year development (2007-2010)
- Leverages investment in CHIMES system

# CAPS System

- Supports Montana's child protection program
- Replaces legacy CAPS system which will be 15 years old when retired
- Estimated cost \$27.1m (\$15.2m general funds)
- 4 year development period (2007-2011)
- Includes business process review



## MMIS Enhancement – ICD-10 Codes

- MMIS system adjudicates \$900m/yr in claims for the Medicaid program
- New federal regulation requires adoption of next generation of diagnosis coding – ICD-10
- Estimated cost \$3.0m, \$300k general fund
- Most recent compliance date published is Jan 2009

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1

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7

## CAPS System

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- 4 year development period (2007-2011)
- Includes business process review

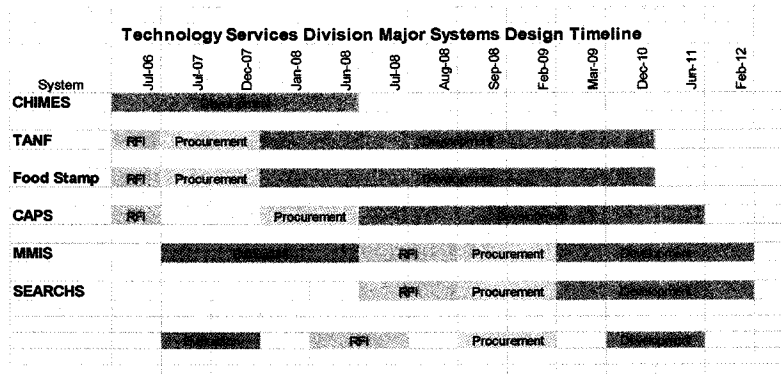
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## MMIS Enhancement – ICD-10 Codes

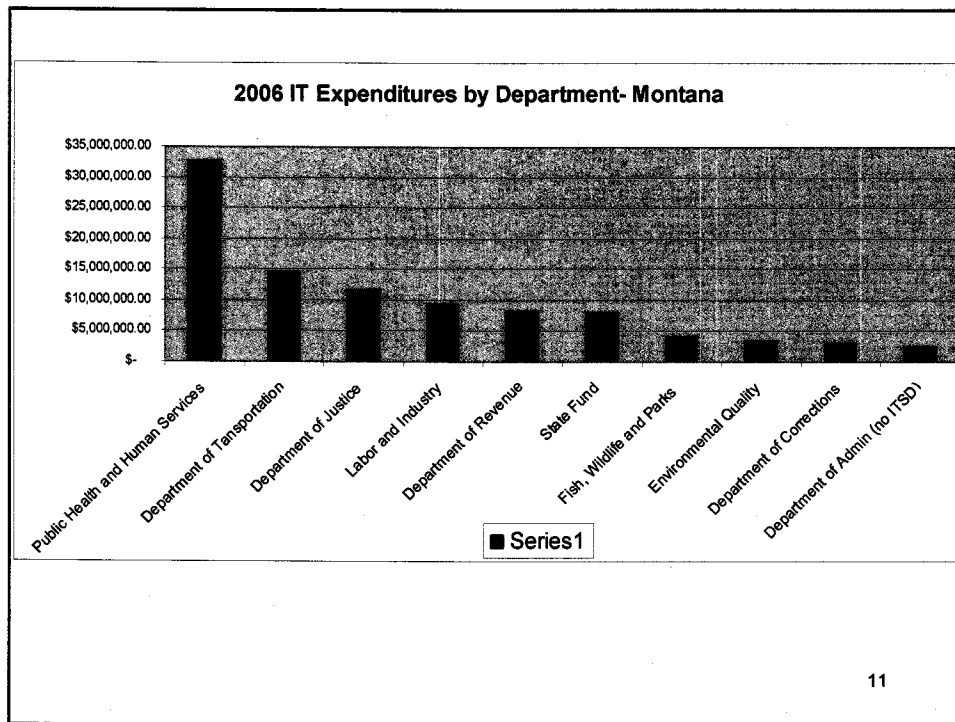
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9

## TSD System Timeline



10



## Financial Impact of Replacing Systems Now Instead of Later

Replacing systems now, rather  
than delaying, will save  
approximately \$16m

## Net Present Value of Replacing Now

- Compare “replace now” and “delay” options – cash flow to cash flow
- Consider
  - Maintenance & enhancement costs
  - Additional program staff required to work around old systems
  - Eventual cost of replacement if delay
  - Expected value of cost of system failures
  - Amortized replacement costs

13

## Age of Legacy Systems

### Year implemented

### Age at Retirement

- |                  |                       |
|------------------|-----------------------|
| • TEAMS - 1991   | • 16 now, 20 at retmt |
| • CAPS - 1996    | • 11 now, 15 at retmt |
| • SEARCHS - 1994 | • 13 now, 20 at retmt |
| • MMIS - 1976    | • 30 now, 34 at retmt |

14



## CAPS Age - 15 or 25?

Chronological Age = 15

"Biological" Age = 25?

When built:

- Automated pieces of paper rather than taking advantage of new business processes
- Relied on technology that was already 10 years old when adopted

15

## Risks of Inaction

- Failures/glitches
- Collapse
- Security breaches
- Liability
- Extraordinary maintenance costs
- Extraordinary costs for staff to handle caseloads
- Inability to handle federal or other mandates
- Inability to conduct business efficiently
- Challenging the development infrastructure

16

## Patience urged on Medicare refunds

By DIANE COCHRAN - The Billings Gazette - 10/07/06

### **Officials debate what action 1,700 Montana seniors should take following computer glitch**

BILLINGS (LEE) — Be patient.

That seems to be the best advice for about 1,700 Montana senior citizens who got mistaken refunds of their Medicare prescription drug plan premiums two months ago.

The Centers for Medicare and Medicaid Services asked beneficiaries who got the money — 230,000 people nationwide — to return it, and about 111,000 of them did. Half of the **\$50 million in erroneous refunds** was repaid by Sept. 30.

But last week a federal judge in Washington, D.C., ordered the government to return those repayments because CMS didn't tell people who got them that they could ask to keep them under federal law.

This week, the U.S. Court of Appeals for the District of Columbia stayed that order until the government's appeal of the lower court ruling is resolved. Oral arguments in the appeal were to be set for January.

So, where does that leave Medicare beneficiaries who got the mistaken money? It depends on who you ask.

if they can show the mistake was not their fault and that returning the money would be economically difficult, the groups argued.

The government claims the law doesn't apply in this situation.

The \$50 million in premium refunds went out in August after a computer glitch between CMS and the Social Security Administration.

Beneficiaries who got the refunds pay their prescription drug plan premiums through withholdings from their monthly Social Security benefit.

Contact Diane Cochran at [dcochran@billingsgazette.com](mailto:dcochran@billingsgazette.com) or 657-1287.

## **Ranchers still waiting for federal disaster payments**

By MARY CLARE JALONICK - Associated Press Writer - 10/02/05

### **Baucus pressuring ag department to distribute money from 2004 spending bill**

WASHINGTON — Livestock producers around the country are still waiting for agricultural disaster payments Congress approved a year ago to help them deal with an ongoing drought.

Sen. Max Baucus, D-Mont., and other senators are pressuring the Department of Agriculture to distribute money that Congress appropriated in an October 2004 spending bill. Baucus, who met with Deputy Agriculture Secretary Chuck Conner Friday to discuss the issue, said that only 13 percent of the checks have been distributed to qualified producers.

Department spokesman Ed Loyd attributes the delay to "one glitch after another" in department computer systems and said Friday that the payments should be distributed within the next two weeks.

"USDA recognizes it has taken far too long to distribute these payments to these producers and we are doing everything we can to move the process forward," he said.

"It's a real domino effect," he said.

Sen. Pat Roberts, R-Kan., assailed the department's plan to close about a third of the nation's Farm Service Agency offices, which are in charge of distributing the payments.

"I am disappointed that it has taken this long to get payments out to farmers," he said Friday. "Maybe FSA should focus more on assisting farmers than closing offices."



## Cop's errant click posts personal info

Posted: Monday, November 6 at 05:00 am CT by Bob Sullivan

There's a new reason to be concerned about an encounter with local police, whether you're a victim or a suspect.

In Ohio last month, a police department accidentally published intimate details about every person officers encountered during a single day, including Social Security Numbers, driver's license numbers and more.

A stray click led the Bowling Green, Ohio, Police Department to publish the wrong report to the agency's police blotter Web site on Oct. 21, according to operations Lt. Brad Biller. Instead of posting a sanitized blotter, with all the personal information redacted, the agency published what is known as an "end of day report."

That report includes birth dates, SSNs, race descriptions, license numbers and more on each of the nearly 200 people the cops had contact with that day. It also included extended narratives about each incident, written by the responding police officer.

"A dispatcher ran the wrong report and provided the wrong report to the technology people," Biller said. "We uploaded the wrong report."

Web surfer Ann Snowberger, who lives in Three Forks, Mont., alerted MSNBC.com to the error. She found it using Google while she was researching an individual whose name appeared in the report.

That person, whose name MSNBC.com agreed not to publish, had been given a warning on Oct. 21 because she had not properly displayed her front license plate.

Much to my horror," Snowberger said. "I discovered that the Bowling Green Police department has published 52 pages (of the report) on the Internet."

By the time MSNBC.com searched for the report, it was no longer available on the Bowling Green Web site. The city only stores 7 days worth of reports on its site. But a cached version of the report was stored on Google's servers, and was accessible Friday afternoon. The cached version was removed after MSNBC.com contacted Google.

Inadvertent publication of Social Security Numbers on government Web sites is nothing new. Private information can often be found on county tax records, divorce or bankruptcy proceedings and other public documents published by local agencies.

# The Record

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[www.northjersey.com](http://www.northjersey.com)

## **The Social Security numbers and other personal information on hundreds of New Jersey residents have been compromised by a computer glitch in the state Department of Labor.**

Wednesday, November 15, 2006

By KEVIN G. DeMARRAIS  
Staff Writer

In what state officials called "a malfunction of mechanical equipment," the names and Social Security numbers of residents receiving unemployment benefits "may have been accidentally delivered to an employer for whom you did not work."

In a letter last week to 1,700 workers, the state said it did not know how many of them were affected. Only people who worked for non-profits or government agencies were involved, Labor Department spokesman Kevin Smith said.

Thus far the department has found 22 of 300 employers involved who got the wrong materials, Smith said. "We're trying to call all of the employers in the process."

Still, the department suggested that workers may want to contact the three national credit bureaus to put a freeze on their credit files to prevent would-be identity thieves from using the personal information to open charge accounts in the name of the workers.



## Hackers Hit Lexis Nexis Database

### Personal Data Of As Many As 32,000 People May Have Been Stolen

NEW YORK, March 10, 2005 (CBS/AP)

The breach was discovered during internal checking procedures of customer accounts. The company plans to contact all 32,000 affected customers to offer them help in detecting identity theft, including credit monitoring.

(CBS/AP) Lexis Nexis says hackers commandeered one of its databases, gaining access to the personal files of as many as 32,000 people.

Federal and company investigators are looking into the security breach in the Seisint database, which was recently acquired by Lexis Nexis and includes millions of personal files for use by such customers as police and legal professionals.

Seisint also provides data for Matrix, a crime and terrorism database project funded by the U.S. government that has raised civil rights concerns.

Information accessed included names, addresses, Social Security and driver's license numbers, but not credit history, medical records or financial information, corporate parent Reed Elsevier Group PLC said in a statement.

"We sincerely regret the circumstances that were recently announced," Kurt Sanford, president and chief executive officer of Lexis Nexis corporate and federal markets, said in a statement.

This is the second such infiltration at a large database provider in recent months. Rival database ChoicePoint Inc. said last month that the personal information of 145,000 Americans may have been compromised by thieves posing as small business customers.

In the ChoicePoint scam, at least 750 people were defrauded, authorities say. The incident fueled consumer advocates' calls for federal oversight of the loosely regulated data-brokering business, and legislative hearings are expected.

Both data heists, says **CBS News Technology Analyst Larry Magid**, involve personal information stored in large commercial databases - whose security is beyond the control of consumers.

As long as companies continue to warehouse information, consumers are sitting ducks for **identity theft**. This is not a case of people being careless about their passwords or documents or the security of their PCs," says Magid. "This is wholesale theft of consumer data and there is almost nothing individuals can do to prevent this type of hacking."

"The best defense," he adds, "is to keep a close eye on your bills, bank accounts and credit reports" - to watch for any suspicious or unusual activity.

Lexis Nexis will be notifying the estimated 32,000 affected customers in the coming days. CEO Kurt Sanford says the company will provide them with ongoing credit monitoring "and other support to ensure that any identity theft that may result from these incidents is quickly detected and addressed."

The company will also be tightening its ID and password requirements and administrative procedures.

"The U.S. law enforcement agencies have asked us not to say too much, as they are in the process of trying to track down the people who are responsible," said Reed Elsevier spokeswoman Catherine May.

The security breach, according to May, was discovered during internal checking procedures on customer accounts.

# BESTWIRE®

*Real-Time Insurance NewsWire*

## **Medicare Part D Billing Errors Continue**

WASHINGTON November 30 (BestWire) — Blue Cross Blue Shield of Massachusetts is asking about 5,200 of its members to refund as much as \$1,400 per person because Medicare failed to automatically deduct monthly premiums for their Part D drug coverage from their Social Security checks.

In a statement, the Massachusetts Blues said Medicare's error may have affected beneficiaries for as long as 12 months. The insurer said it would allow beneficiaries to pay the money back in monthly increments through March 2007.

The Medicare billing problems also affect about 1,000 Medicare beneficiaries signed up with a Tufts Health Plan Part D product and about 500 members of a Harvard Pilgrim Health Care product, according to the Centers for Medicare & Medicaid Services, which oversees Medicare.

The errors in Medicare's automatic deduction system are ongoing. In late August, a separate processing error caused Medicare to send \$50 million in refunds to 231,000 people enrolled in the Part D program, CMS said (BestWire, Aug. 28, 2006). Those funds — which were sent by mistake — were to repay beneficiaries for monthly premiums for their Part D coverage. Some were paid by check, but most were paid via direct deposit; the erroneous refunds averaged about \$215 per person, CMS said.

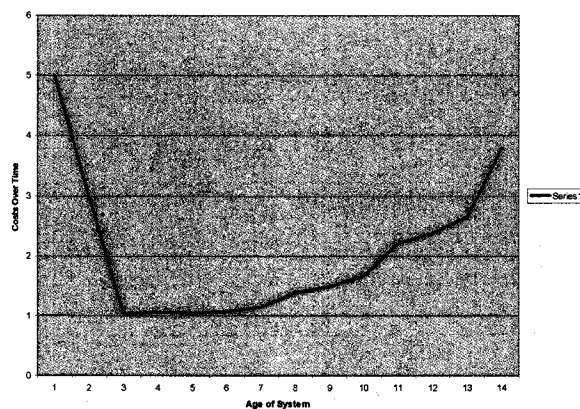
# Costs of Inaction

## Liability

If you could have known (given available technology) you should have known

22

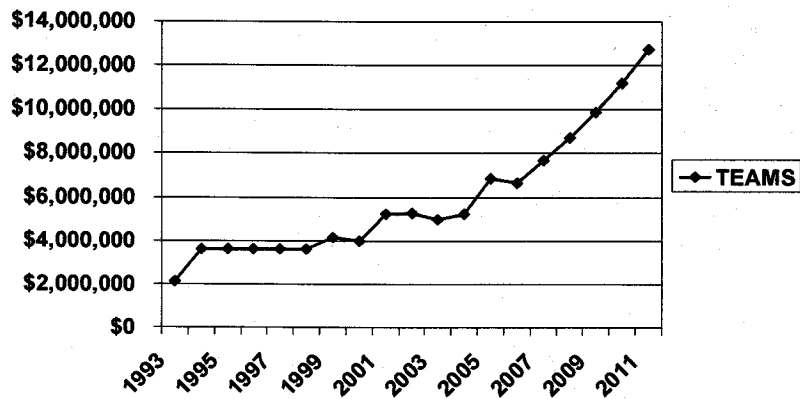
# System Expense Lifecycle



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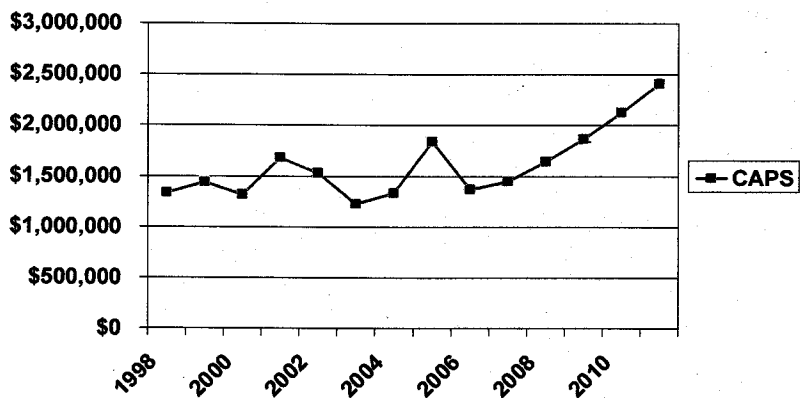


## TEAMS Maintenance & Enhancement Costs



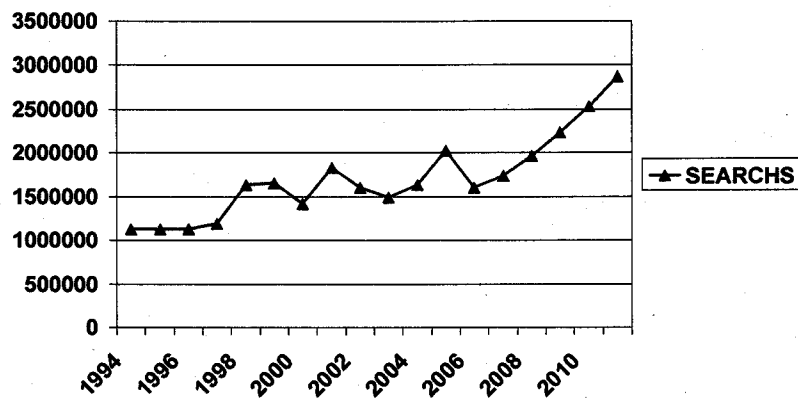
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## CAPS Maintenance & Enhancement Costs



25

## SEARCHS Maintenance & Enhancement Costs



26

## Costs of Inaction

### Challenging the Development Infrastructure

Cost of inefficiency (certain) - 10% across all systems =  
\$20m wasted \$

Expected value of cost of failure (uncertain) - 10% x  
cost of one system's failure = \$1.5m

27

## Risks of System Development

- Complete failure (never useful)
- Over budget
- Past schedule
- Faulty

28

## Famous Failures

- POINTS - Montana Revenue System
- Colorado – Eligibility Systems

29

## Famous Failures - Colorado

- \$200m development cost
- Integrated eligibility system for Medicaid/TANF/Food Stamps/CHIP/misc others
- 2004 implementation

30

## Colorado - Failure Factors

- Overambitious (integrated all systems)
- No single point of authority
- Underfunded and understaffed
- Gross lack of expertise in CO state govt
- Transfer and customize (most risky approach)
- Inequal contracting expertise (should have used private system contracting attorneys)

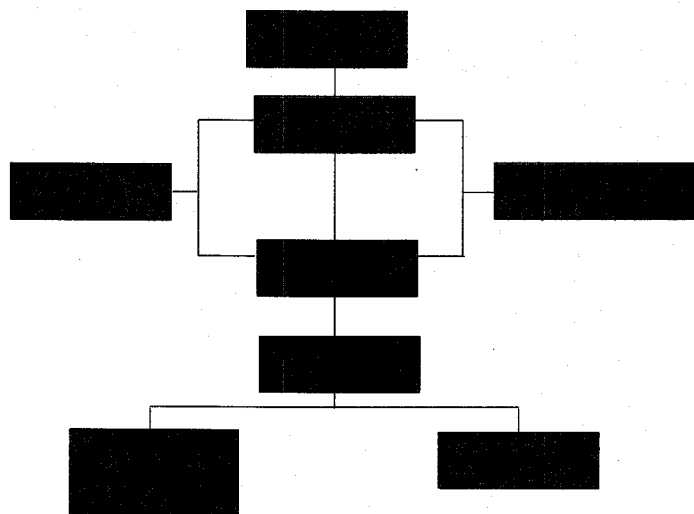
31

## Colorado - Failure Factors

- Conflicting demands of stakeholders (state and local governments)
- Protracted schedule (10 year build)
- No pilot
- No automated testing of throughput (slow response times)
- No contingency plan
- No carryforward of closed cases
- 37% error rate
- Complicated - inches thick user manual

32

## State of Montana System Development Governance



33

## Risk Mitigation

- Strong governance
- Experienced management
- Known territory
- Risk mitigation strategies

34

## Risk Mitigation Strategies

- Choose the right approach
- Adequate funding
- Adequate staffing
- External expertise
- Modular systems
- Contingency planning
- Significant pilots and parallel testing
- Don't overload the development infrastructure

35

## Cost Efficient Approach – Other States' Costs

1. Estimated total cost of CHIMES/TANF/FS = \$37m
2. National comparisons:
  - a. Michigan - \$69m
  - b. Colorado - \$200m
  - c. Tennessee - \$45m
  - d. Utah - \$57m+
  - e. Washington - \$40m
  - f. Wyoming - \$60m+
  - g. Texas - \$279m+

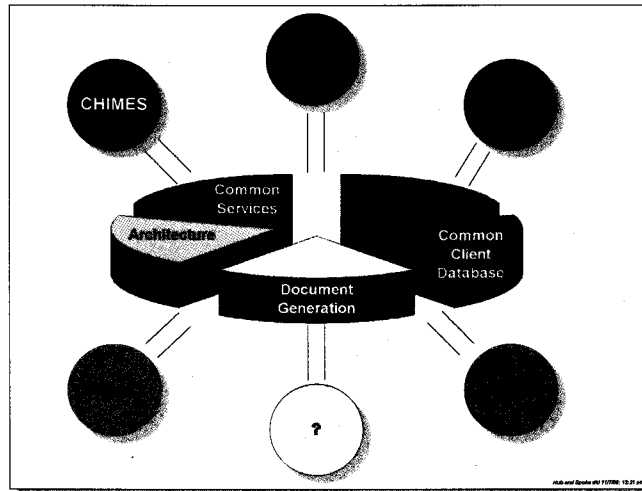
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## Cost Efficient Approach Why less than other developments?

- Not pioneering
- Not integrating several systems - modular approach
- Holistic view (not piecemeal)
- Building on approach established with CHIMES - reduces uncertainty
- Competitive bidding
- Careful requirements definition (involvement of program managers)
- Tight management of scope and project

37

## DPHHS Human Services Information Systems Conceptual Model



38

This slide represents the “approach” for implementing a new generation of human services systems based on a common foundation. That foundation will be composed of:

**Architecture:** A multi-tier architecture strategy which creates a platform that which leverages modular platform components and provides for easier systems development, maintenance, and integration.

**Common Services:** The new architecture will be built using modern software engineering concepts, including web services, a highly modular approach that allows for re-use of application program interfaces between systems and platforms.

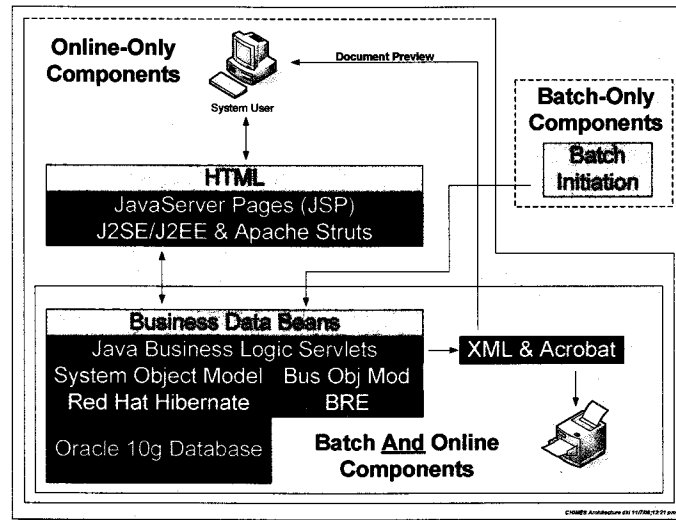
**Rules Engine:** The new architecture will utilize a business rules engine to manage and automate the use of administrative and legislative rules which define the business processes for complex systems such as Medicaid eligibility. Traditionally, business rules have been embedded in the software code. Rules engines allow for the separation of code from business rules. This allows for rules to be modified without IT intervention.

**Document Generation:** The new architecture will provide for automated document generation as an integrated feature of the system housing the data.

**Common Client Database:** A common client database will serve as a demographic hub for several human services. Its goal is to provide a secure, unique, non-redundant and de-duplicated base of person information in which multiple systems store and access client data following data sharing rules established among trading partner programs and organizations.



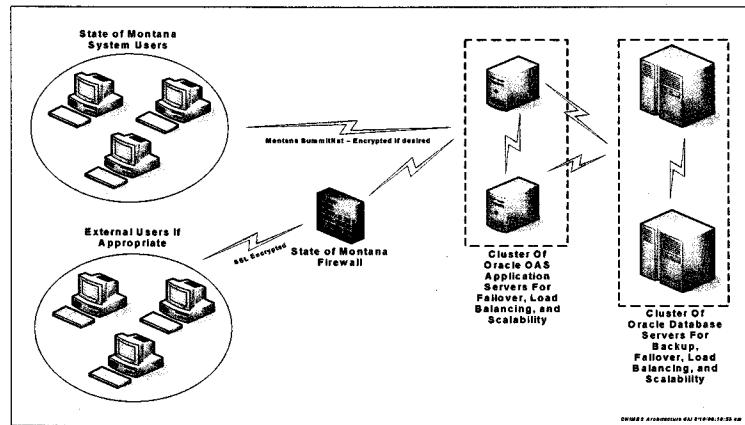
## DPHHS Human Services Information Systems Logical Model



39

This slide illustrates the modern approach to systems and web design that employs a **highly modular structure** based on **Java technology**. In this architecture, what the user sees (**the presentation layer**) is separated from the business logic (**the business Layer**). Data is housed in a **relational database management system** (RDBMS) like Oracle which is securely manages the storage and access of data. Data can be shared with other systems through common transport formats (XML, Acrobat).

## DPHHS Human Services Information Systems Physical Model



40

This slide illustrates a three-tier architecture with secure communication between **database servers, applications servers, and client workstations**. Application code and the database are located safely "inside" the state firewall. A three-tier architecture, composed of a user interface (**Presentation Tier**), processing logic (**Application Tier**), and data access (**Data Tier**), which are developed and maintained as independent modules that reside on separate platforms.

## Current Systems Architecture

- Stovepipe (monolithic)
- Mainframe environment (expensive)
- Outdated programming languages (COBOL)
- Non-relational databases (IDMS)
- Non-graphical (non-windows) interface
- Limited functionality and limited ability to add functionality

41

## New Systems Architecture

- Modular (web services, Java, XML)
- Three-tier architecture
- Relational data base (Oracle)
- Graphical Interface
- Web-based
- Business rules engine

42

## Impact of Outdated Technology

- Difficult to change/add functionality (brittle, monolithic software)
- Expensive to maintain
- Difficult to find programmers for outdated languages
- Limited interface
- Difficult to access data without programmer intervention
- Not open to desktop reporting tools

43

## Risk Management

Choose the right alternative

- COTS (Customize off the shelf software)
- Transfer and customize
- Integrate two or more of the above
- Migrate current functionality
- Build from scratch
- Build but leverage existing systems

44